

IN THE CLAIMS

LISTING OF CLAIMS

Claim 1. (Currently amended) A biodegradable [[Biodegradable]] heterophase polymeric composition [[compositions]] having good resistance to ageing and to low humidity conditions, the composition comprising
a thermoplastic starch [[and]]
a thermoplastic polymer incompatible with starch, wherein the [[in which]]
starch is in a [[constitutes the]] dispersed phase and the thermoplastic polymer is in a
[[constitutes the]] continuous phase, and
[[containing]] an interfacial agent which is an ester having an
hydrophilic/lipophilic balance index value (HLB) greater than 8, which ester is obtained
from a polyol or a mono- or polycarboxylic acid having a dissociation constant pK lower
than 4.5, wherein the pK value refers to the first carboxyl group of the polycarboxylic
acid selected from the following class of compounds: esters of polyols with mono- or
polycarboxylic acids with values of the dissociation constant pK lower than 4.5 (the
value relates to the pK of the first carboxyl group in the case of polycarboxylic acids),
characterised by hydrophilic/lipophilic balance index values (HLB) greater than 8.

Claim 2. (Currently Amended) The A composition according to claim 1,
wherein in the polyol portion of the ester comprises said esters of polyols the polyols
contain 3 or more carbon atoms and 2 or more alcohol groups.

Claim 3. (Currently Amended) The composition Compositions according
to claim 2, in which the polyol is glycerol.

Claim 4. (Currently Amended) The composition Compositions according to claims 2 or 3, in which the ester is a monoglyceride ~~esters are monoglycerides~~.

Claim 5. (Currently amended) The composition Compositions according to claim 2 any of the preceding claims 2-4, in which the ester is an ester of oxalic, malonic, succinic, adipic, glutaric, maleic, citric, tartaric, lactic, or mon- di-, or tri-chloroacetic acid.

Claim 6. (Currently amended) The composition Compositions according to claim 5, in which the ester is [(J)on average(D)] the monoglyceride.

Claim 7. (Currently amended) The composition Compositions according to claim 1 any of the preceding claims 1 to 6, in which the ratio by weight between the thermoplastic starch and the thermoplastic polymer incompatible with starch is such that the starch constitutes the dispersed phase and the thermoplastic polymer constitutes the continuous phase.

Claim 8. (Currently amended) The composition Compositions according to claim 1 any of the preceding claims 1 to 7, in which the quantities of the esters used are from 0.5 to 20% by weight relative to the total composition.

Claim 9. (Currently amended) The composition Compositions according to claim 1 further any of the preceding claims 1 to 8, comprising a plasticizer.

Claim 10. (Currently Amended) The composition Compositions according to claim 9, in which the plasticizer is selected from polyols with 3 or more carbon atoms and with 2 or more alcohol groups, ~~the polyols possibly being etherified or esterified~~.

Claim 11. (Currently Amended) The composition Compositions according to claim 10, in which the polyol is selected from glycerol, sorbitol, etherified or esterified sorbitol, ethyleneglycol and trimethylolpropane.

Claim 12. (Currently amended) The composition Compositions according to claim 9 any of claims 9—11, in which the a quantity of plasticizer is present in the composition of from 1 to 100% by weight relative to the starch is used.

Claim 13. (Currently amended) The composition Compositions according to claim 1 any of the preceding claims, in which the ester is present in the composition used in a ratio of from 1:30 to 1:2.5 by weight to the starch.

Claim 14. (Currently amended) The composition Compositions and materials according to claim 1 any of the preceding claims, in which the thermoplastic polymer is an selected from aliphatic or aliphatic-aromatic polyester, which is obtained by a reaction selected from a polyesters obtainable by polycondensation of hydroxyacids with 2 or more carbon atoms, or from the corresponding lactones or lactides, or by a polycondensation of a diol with 1-12 carbon atoms with a dicarboxylic aliphatic acid or with mixtures thereof with dicarboxylic aromatic acids.

Claim 15. (Currently Amended) The composition Compositions according to claim 14, in which the polymer is a poly- ϵ -caprolactone.

Claim 16. (Currently amended) A film produced from a composition of claim 1 Films as obtainable from the compositions of any of claims 1 to 6.

Claim 17. (Currently amended) A consumer product comprising a film according to claim 16, wherein the consumer product is selected from the group consisting of Use of the film according to claim 16 in the manufacture of nappies, or

sanitary towels, of bags, of laminated paper, of laminates and of films treated with inorganic products, such as silica and alumina.

Claim 18. (Currently Amended) Compositions comprising a film according to claim 16 Use of the films of claim 16 in the agricultural field and for cellophaning.

Claim 19. (Cancelled)

Claim 20. (Currently Amended) A material obtained from a heterophase composition as obtainable from heterophase compositions comprising a thermoplastic starch and a thermoplastic polymer incompatible with starch, wherein in which the starch is in a constitutes the dispersed phase having a microstructure in which at least 80% of the particles have dimensions smaller than 1 μm and the thermoplastic polymer is in a constitutes the continuous phase, characterised by a microstructure of the dispersed phase in which at least 80% of the particles have dimensions smaller than 1 μm .

Claim 21. (Currently Amended) The material A material according to claim 20, in which the average numeral particle size is between 0.1 and 0.5 μm .

Claim 22. (Currently Amended) The material A material according to claims 20 or 21 in film form.

Claim 23. (New) The composition according to claim 10 wherein the polyol is etherified or esterified.